

Claims

What is claimed is:

1. A method for treating a patient with sexual dysfunction comprising:
providing at least one stimulator having at least one infusion outlet for infusing at least one stimulating drug;
implanting the at least one stimulator with the at least one infusion outlet adjacent to at least one nerve supplying somatic motor input to the penis;
providing operating power to the at least one stimulator;
using at least one external appliance to transmit stimulation parameters to the at least one stimulator;
receiving and storing the stimulation parameters; and
delivering the at least one stimulating drug to nerve fibers adjacent to the at least one infusion outlet in accordance with the stimulation parameters;
wherein the at least one stimulator has a size and shape suitable for placement of the at least one infusion outlet adjacent to the at least one nerve supplying somatic motor input to the penis.
2. The method of claim 1 wherein the at least one stimulating drug increases activity of at least one nerve supplying somatic motor input to the penis.
3. The method of claim 2 wherein the at least one nerve supplying somatic motor input to the penis comprises at least one of the pudendal nerves.
4. The method of claim 3 wherein the at least one pudendal nerve is at least one of the pudendal nerve and the dorsal nerve of the penis.
5. The method of claim 1 further comprising implanting at least one infusion outlet adjacent to at least one nerve providing autonomic innervation of the penis.

6. The method of claim 5 wherein the at least one nerve providing autonomic innervation of the penis comprises one or more of the cavernous nerves, the nerves of the prostatic plexus, the nerves of the branches of the prostatic plexus, the nerves of the uterovaginal plexus, the nerves of the branches of the uterovaginal plexus, the pelvic splanchnic nerves, the second, third, and fourth sacral nerves, the hypogastric nerves, the sympathetic ganglia from which the hypogastric nerves arise, the hypogastric nerves, the nerves of the inferior hypogastric plexus, and the nerves of the branches of the inferior hypogastric plexus.

7. The method of claim 1 wherein the implantable stimulator further comprises at least one sensor.

8. The method of claim 7 wherein the sensed condition is used to adjust the stimulation parameters.

9. The method of claim 8 wherein the parameter adjustment is performed using the at least one external appliance.

10. The method of claim 8 wherein the parameter adjustment is performed by the implantable stimulator.

11. A method for treating a patient with sexual dysfunction comprising:
providing at least one leadless stimulator having at least one electrode;
implanting the at least one stimulator adjacent to at least one nerve supplying somatic motor input to the penis;
providing operating power to the at least one stimulator;
using at least one external appliance to transmit stimulation parameters to the at least one stimulator;
receiving and storing the stimulation parameters;
generating stimulation pulses in accordance with the stimulation parameters; and

delivering the stimulation pulses to nerve fibers adjacent to the at least one stimulator;

wherein the at least one stimulator has a size and shape suitable for placement of the at least one electrode adjacent to the at least one nerve supplying somatic motor input to the penis.

12. The method of claim 11 wherein the stimulation pulses are excitatory stimulation pulses.

13. The method of claim 12 wherein the at least one nerve supplying somatic motor input to the penis comprises at least one of the pudendal nerves.

14. The method of claim 13 wherein the at least one pudendal nerve is at least one of the pudendal nerve and the dorsal nerve of the penis.

15. The method of claim 11 further comprising implanting at least one electrode adjacent to at least one nerve providing autonomic innervation of the penis.

16. The method of claim 15 wherein the at least one nerve providing autonomic innervation of the penis comprises one or more of the cavernous nerves, the nerves of the prostatic plexus, the nerves of the branches of the prostatic plexus, the nerves of the uterovaginal plexus, the nerves of the branches of the uterovaginal plexus, the pelvic splanchnic nerves, the second, third, and fourth sacral nerves, the hypogastric nerves, the sympathetic ganglia from which the hypogastric nerves arise, the hypogastric nerves, the nerves of the inferior hypogastric plexus, and the nerves of the branches of the inferior hypogastric plexus.

17. The method of claim 11 wherein the implantable stimulator further comprises at least one sensor.

18. The method of claim 17 wherein the sensed condition is used to adjust the stimulation parameters.

19. A method for treating a patient with sexual dysfunction comprising:
providing a first stimulator having at least one infusion outlet for infusing at least one stimulating drug;
providing a second stimulator having at least one electrode for electrically stimulating body tissue;
implanting the first stimulator with the at least one infusion outlet adjacent to at least one nerve supplying somatic motor input to the penis;
implanting the second stimulator with the at least one electrode adjacent to a nerve innervating penile tissue;
providing operating power to the first stimulator and the second stimulator;
using at least one external appliance to transmit stimulation parameters to the first stimulator and the second stimulator;
receiving and storing the stimulation parameters;
delivering the at least one stimulating drug in accordance with the stimulation parameters to nerve fibers adjacent to the at least one infusion outlet;
delivering the electrical stimulation in accordance with the stimulation parameters to nerve fibers adjacent to the at least one electrode;
wherein the first stimulator has a size and shape suitable for placement of the at least one infusion outlet adjacent to the at least one nerve supplying somatic motor input to the penis; and
wherein the second stimulator has a size and shape suitable for placement of the at least one electrode adjacent to at least one nerve innervating penile tissue.

20. The method of claim 19 wherein the at least one electrode is positioned on a lead, which lead is up to about 150 mm long.